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The Pin Maker

By WILLIAM B. SPRAGUE

[The capital letters, interspersed through the text, refer to the list of authorities at the end of the article.]

The metal pin was invented in France, probably in the 15th century (A, J), prior to which its function had been performed by splinters of bone, ivory or boxwood (A, B, N). Brass wire was used in England for pin-making as early as 1443 (A), and in 1483, a statute was enacted, prohibiting the importation of brass pins from abroad (A, B, J). In 1667, Joseph Jenks petitioned the General Court of the Plymouth (Massachusetts) Colony "to advance a sum for ye encouragement of wyre-drawing" etc. The court, in reply, thought it "not meet to advance any money on that design; but being desirous to encourage all persons among us in manuall arts and trades of publique utilitye, and being informed that there are in this towne a sett of tooles for wyre-drawing, and that there be some in this place that are able and skillful in that imploy, the improovement whereof would be of great use in sundry respects, this court doth therefore order the Treasurer of the county to disburse out of the public treasury such a sune of money as will be necessary for the purchase of said instruments and tools not exceeding fifteen pounds; and the Treasurer and Major-Generall Leveret are appointed and empowered to dispose of the said instruments so as may best further the ends proposed, as also to disburse forty shillings for the encouragement of those who shall make cards [undoubtedly wool cards.—Auth.] and pins of the said wiar" (E). In 1775, the Provincial Congress of North Carolina offered fifty pounds for the first twenty-five dozen pins of domestic make, equal to those imported from England, and costing seven shillings and sixpence a dozen (E); at about the same time, Jeremiah

Wilkinson was drawing wire and making pins at Cumberland, R. I. (E), and Leonard Chester proposed to the Connecticut Legislature to erect a pin factory at Wethersfield (E). A few years later, Dr. Apollos Hinsley, of Connecticut, invented a "machine for making pins" (E). Several pin factories were established in this country in the



STRAIGHTENING THE WIRE
from Tomlinson's Illustrations (G)

early part of the 19th century (D, J), although it was not until the 1830s that the industry was practiced in New York (A). Prior to the introduction of efficient machinery, about the middle of the last century, each pin, in the course of its construction, engaged from eighteen (N) to twenty-five (A, B) different persons in successive operations, from drawing the wire to sticking the finished pins into the papers in which they were marketed (F, J). "All the processes employed in the art of pin-making, if added together for one pin, would occupy rather more than seven hours and a half of time, yet by the division of labor, and by making so many at the same time, it is possible to manufacture them with profit for the small price at which they are sold" (I).

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Bath Tubs

By G. A. R. GOYLE

In 1842, Cincinnati was startled by an innovation. Adam Thompson, the rich grain and cattle merchant, had been abroad and imbibed some revolutionary ideas. In England it had come to his notice that the Prime Minister had a bathtub in his home, and what a Prime Minister could enjoy in England, Adam Thompson figured he could have in Cincinnati. A man of action, soon after his return, he commissioned a local cabinet maker to construct a tub of mahogany, seven feet long and four feet wide, and had it lined with sheet lead. It proved to be a ponderous affair, weighing 1750 pounds, and before putting it in place, the floor had to be strengthened to sustain the heavy weight. A cypress tank was placed in the attic to supply the necessary water, and six negroes were kept busy filling it. The pipe leading to the "bathing tub," as it was then called, was coiled around in the chimney, above a grate fire, to heat the water. When finally the installation was complete and in working order, Adam Thompson gave a dinner party to show it to his friends and let them try it. For moral support, he had invited a French officer who, more used to such contrivances, would politely uphold him, in case the local guests did not approve of the innovation. This was on December 20, 1842, and the papers reported the incident at length.

The anticipated agitation soon started. An old doctor, undecided what attitude to assume, scanned his medical books for authoritative backing, but, alas, without avail. This was indeed a new issue which nobody ever had had to face before. Finally he remembered his *Domestic Encyclopedia*, printed in Philadelphia in 1804, and there found the following:

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The Pin Maker

(Continued from page 1, column 2)

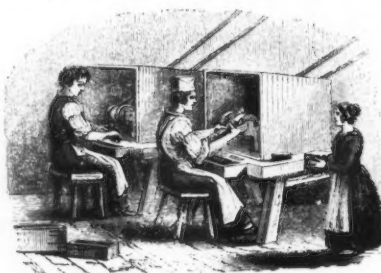
The pin maker purchased his wire in coils about twenty-two inches in diameter (I, L) and thirty-six pounds in weight (L). It was usually too coarse for his purpose, and, in order to bring it down to the necessary fineness, it was "wound off from one wheel to another with great velocity, and made to pass between the two through a hole in a piece of iron of smaller diameter than the wire itself is, which operation is called *wire drawing*. This operation is repeated with holes of different diameters, till the wire is reduced to the size that may be wanted: what it loses in bigness, it of course gains in length" (B). See also (J, H).

The wire was then straightened. "This is done in an apartment generally appropriated for the purpose. Any number of threads of wire which the workman chooses, and of any length, so that they are not longer than the room where the operation is carried on, are tightly stretched, and allowed to remain in that position for a considerable time" (F, G). "The straightening engine is formed by fixing six or seven nails upright in a waving line on a board, so that the void space measured in a straight line between the first three nails may have exactly the thickness of the wire to be trimmed; and that the other nails may make the wire take a certain curved line, which must vary with its thickness. The workman pulls the wire with pincers through among these nails, to the length of about thirty feet, at a running draught; and after he cuts that off, he returns for so much more; he can thus finish six hundred fathoms in the hour" (K, L).

The straightened wire was then cut into pieces just long enough for six pins (A, B, F, H), "with shears operated by the foot" (L), and turned over to the pointer. These pieces were sharpened at each end, by holding them, a handful at a time—fifty to sixty (G, M)—first against a coarse grindstone and then against a fine one (B, H, J), the operator "being careful to keep each piece moving around between his fingers so that the points may not become flat" (B, G, H, K). Sometimes the pointing was done on a *steel mill*, which consisted of two cylinders, about six inches in diameter and about two and a half broad, faced with steel, which were "cut in the manner of a file," one finer than the other,

fixed on the same axis, a few inches apart. The points were roughly formed on the coarse one and finished on the finer one (L). The length of a pin was then cut off from each of the pointed ends, the ends which were left similarly pointed and cut off, and the ends of the remaining piece pointed and the piece cut in two (A, K, M). A boy of twelve could sharpen 16,000 in an hour (A, H, I, J).

The next operation was to head the pins. One writer states that the heads were made separately "prior to 1831" (C), and successful machinery for



POINTING
from Tomlinson's Illustrations (G)

making the whole pin was invented about that time (A, E), but the encyclopedias of the 1850s (K, M) describe hand heading as a process which had not then become obsolete. Cast heads, of an alloy of tin and antimony, were patented prior to 1850, but never came into general use (K).

The wire used for the heads was much softer and finer than that for the pins (M). Forming the heads was called *making the heading* (L) or *head spinning* (A, F, J). "For this purpose a boy takes a piece of wire, of the same diameter as the pin to be headed, which he fixes on an axis which can be made to revolve rapidly by means of a wheel and strap connected with it. This wire is called the mould. He then takes a smaller [*finer—Auth.*] wire, which, having passed through an eye in a small tool held in his left hand, he fixes close to the bottom of the mould. [*Presumably the function of the small tool was to hold taut the other end of the heading wire.—Auth.*] The mould is now made to revolve rapidly by means of the right hand, and the smaller wire coils around it until it has covered the whole length of the mould. The boy now cuts the end of the spiral connected with the foot of the mould, and draws it off. When a sufficient quantity of *heading* is thus made, a man takes from twenty to thirty of these

spirals in his left hand, between his thumb and three outer fingers; these he places in such a manner that two turns of the spiral shall be beyond the upper edge of a pair of shears; and with the forefinger of the same hand, he feels that only two turns do so project. With his right hand, he closes the shears; and the two turns of the spiral being cut off, drop into a basin; the position of the forefinger preventing the heads from flying about when cut off." (L). See also (A, B, F, I, J, M).

The heads were then heated red hot, in an iron pan placed in a furnace (J), or in an iron ladle over an open fire (K), and then thrown into cold water (K), the object being to soften them and make them pliable (B, H). They were then distributed to children, each of whom "sits before a steel stake having a cavity, into which one-half of the new head will fit; immediately above is a steel die having a corresponding cavity for the other half of the head: this latter half can be raised by a pedal moved by the foot, and it falls through a very small space, perhaps from one to two inches, the weight being from seven to ten pounds. There is a cavity in the center of these dies, to admit the body of the pin, and prevent its being injured by the blow of the die, which is produced by raising and letting it fall upon the head for the purpose of tightening it." (I). See also (L). The operator "takes a number of heads in his apron, and taking up a few headless pins in his fingers, he plunges them into his lap and works them about with a sort of threading motion. Most of the wires in this way catch up a head, some two or three heads, which superfluous ones are rapidly removed, and they are now ready for *moulding* or fixing securely the heads to the shanks" (M). One writer states specifically that the head was taken on to the blunt end (B), but another asserts that the pointed end was inserted into the head, which was then moved along to the other end (I), and this latter method would logically appear to have been the more efficient one. The headed end was then "applied immediately to the anvil and hammer, and by a motion or two of the foot, the point and head are fixed together in much less time than it can be described in, and with a dexterity only to be acquired by practice, the spectator being in constant apprehension for the safety of the finger ends." (B). See also (F, H, J, M). Sometimes the

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heads were threaded by a girl and passed to a man who fastened them, which could be done at the rate of 1,500 per hour (G), or from 10,000 to 15,000 per day (I, K). About one in a hundred of the pins were spoiled in the process; these were picked out by women and melted up (L).

The construction of the pins was now complete, but to clean (G, I) and slightly roughen them to receive the coating of tin (I, L), they were boiled in a pickle (L) of sour beer (G) or a solution of tartar (G, I, M). To coat them, they were placed in a copper vessel, containing a solution of tin and the lees of wine (A, B, F, J), about seven or eight pounds of grain tin to six pounds of pins (G, K, M). "After a while, the tin leaves the liquid and fastens on the pins." (A, B, H). They were polished by "being placed in wooden trays, and well shaken in dry bran; this removes any water adhering to them; and by giving the wooden tray a peculiar kind of motion, the pins are thrown up and the bran gradually flies off, and leaves them behind in the tray (L),—in other words, as chaff was separated from wheat (A, B, G, J).

It was now necessary to place the finished pins in papers, ready for sale. "The papers are crimped by means of crimping irons; and the folds for one row being gathered together are placed between the jaws of an iron vice, which closes by means of a spring. There are grooves across the jaws of the vice, to guide the paperer, who sits with her lap full of pins. Instead of taking them up one or two at a time, she passes a pocket-comb through the pins and takes up the number required for one row; and directing the points along the grooves, pushes the pins into the paper with great rapidity, by means of a metal guard on the left hand. She then pulls open the vice, gathers together the next row of folds, places them in the vice, and fills them as before" (G, I, M). Apparently, a method somewhat the reverse of the foregoing was sometimes employed. The paperer, having taken up the pins with the comb, and "having thus arranged them in a parallel direction, she fixes the requisite number between two pieces of iron, having twenty-five small grooves, at equal distances; and having previously doubled the paper, she presses it against the points of the pins until they have passed through the two folds which are to retain them. The pins are then relieved from the grasp of the tool and the process is

repeated" (L). A child could paper 36,000 pins in a day (K). Machinery for this purpose was invented in 1841 (D).

Prior to 1744, pins were sold in loose lots; after that they were put up in boxes; and, by 1785, in papers (C). The smallest sizes were called *minnkins* (A, B, C), *minifers* (C) or *lillskins* (L); the next smallest size, *short whites* (A, B); and the larger ones, numbered from three to twenty (A, B, F), *middlings*, *corkings* (F, H), and *blanket pins* (H). Unusual types of pins were those with a head at each



HEADING
from Rivington's *Trades* (B)

end, of various sizes, "used by ladies to adjust their hair at night without danger of pricking" (A, B, F), and those which were made of iron—instead of brass—wire, and colored black by a varnish of linseed oil and lamp-black, to be used with mourning dress (A, B).

In the very early days, there was a law in France that a pin maker could not open more than one shop for the sale of pins, except on New Year's Day and the day before, and from this fact it is assumed that pins, being considered an article of luxury, were given away as New Year's presents, and that this gave rise to the expression *pin money* (B, F, H, J).

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Quill Pens

The Great Industries of the United States, by J. B. Burr and Hyde, states that many writers "still" (1873) used quill pens only, and that for some purposes they were preferred to other pens. The quills were first assorted, the outside skin removed by a hot sand bath, and the barrels hardened by dipping them in a solution of nitric acid. Sometimes they were sold in this form to writers who undertook to fashion their own pens, either with a "pen knife" (from which fact the latter term originated), or with a machine for this purpose which could be carried in the pocket. Knight's *American Mechanical Dictionary* (1876) describes this machine as follows: "The jaws of the tool are convex and concave to receive the point of the quill which has one half cut away; and, by closing, a set of small dies form the outline of the pen, while a little blade in the middle makes the slit." One necessary qualification of a school teacher, in the very early days, was the ability to make pens for his pupils, but, after the invention of the instrument above referred to, the quills were also marketed in finished form. At a meeting of the Bucks County Historical Society, held October 24th, 1914, those present whose memories reached back sufficiently discussed the subject of quill pens. One interesting statement, apparently well authenticated, was that, for a writer with the right hand, the quill must be taken from the right wing of the goose, and *vice versa*.

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Farm Implements of the 18th Century

(Continued from last issue)

PRONG HOE, a hoe with prongs instead of a blade. It is either a bident or a trident. It is easily struck into the ground, and as the tines are six or seven inches long, it will stir the ground to the same depth that a plough does. It is useful in taking up strong rooted weeds and opening ground that is crusted or become too compact. The eye and handle are the same as a common hand hoe. It is the best instrument to stir the ground with close to the roots of plants.

RIPLING CART, a machine to perform the work of reaping. In a pamphlet published at New-york in the year 1790 by F. C. H. B. Pollintz, a ripling cart, as he calls it, is recommended for the harvesting of wheat. In the operation the heads are taken off by seven combs, each four feet in length. The combs are strongly fastened at equal distances to a roller which is turned by bands from the wheels of the cart and which throws the heads into the cart, which is pushed forward by one horse, harnessed with his head toward the cart. Allowing that the horse travels twenty miles per day, ten acres are reaped. A boy placed in the cart fills sacks with the heads as the cart is going and throws them out at the head lands. After the heads are thus collected, the threshing of the wheat is represented as performed by a mill built on the principles of a common coffee mill, which is turned and fed by two small boys who can do three bushels in an hour. If these modes of threshing and reaping were brought into common use, it is astonishing to think how much labour might be saved. But I suspect there are difficulties attending the method of reaping.

ROLLER, a cylindrical instrument to pass over lands to answer several good purposes in husbandry. Those rollers which are cut out of freestone, being heavier than wooden ones, are best to smooth and harden the alleys in gardens, walks, &c. But wooden ones answer better in tillage when they are sufficiently large. A roller for field husbandry should be five or six feet long so that it may perform much in a short time, being drawn by a horse or a yoke of oxen for either of which it may be easily harnessed. It should be made perfectly round and smooth, that it may be drawn the more easily

and press the ground the more equally in all parts. It should be from eighteen to twenty-four inches diameter. Being large, the pressure will be greater and the surface will be left more level. A spiky roller, or roller filled with spikes six or seven inches long, sharp pointed at the outer ends, is sometimes used in the old countries to pulverise cloddy land in tillage or to brake and open the sward of grass land when it is bound and too compact. After grass land is so broken, a top dressing will have the better effect. A roller is sometimes armed with circular knives four or five inches broad put on in the manner of hoops, the edges at right angles with the axis of the roller, twenty inches from each other. They use these instruments to cut the sward into strips in order to cut up the turfs with a short ironed plough for burnt beating. This manner of doing the work is far less expensive than cutting up the turfs with the beating axe. But the sward of land to which this instrument is applied ought to be extremely level and free from stones and strong roots.

SITHE, a well known instrument to cut grass. This instrument should consist of tough iron and the best of steel, well wrought together and nicely tempered. If the temper of a sithe should prove to be too high, it may be lowered by laying it in the hot sun a few days in midsummer.

SLED, or SLEDGE, a carriage without wheels, chiefly used to convey loads when the ground is covered with snow. Plank sleds and framed sleds are both used. The latter for lightness are rather preferable. But plank sleds are more used for the heaviest loads, as masts and mill logs. The common length of a sled is eight or nine feet, but longer ones are better for carrying boards and long timber.

SNEAD, or SNATHE, the staff or handle of a sithe. The right timber for sneads is white ash that grows on upland, it being light and stiff, which are two very necessary qualities. If a snead be heavy, it will help to tire the mower and if it be limber and easy to bend, it will cause the sithe to tremble, which will hinder, in some degree, its cutting and render the labour of the mower more difficult and fatiguing. It must be naturally of the right crook and not cut across the grain of the wood.

SPADE, an instrument used in digging. Spades differ in their shape

and construction according to the different operations in which they are to be used.

SPIKY ROLLER, a wooden roller armed with spikes, of important use in husbandry. This instrument was formerly just mentioned by Mr. Ellis; but has of late been brought into use by the ingenious Mr. Randall, of York in England, who recommends that the roller be a cylinder of the heart of oak seven feet long and eighteen inches diameter, with a strong band of iron on each end. Teeth or tines of iron seven inches long are driven three inches into the wood and four inches apart in the quincunx order over the whole convex surface. The outer points must be pretty sharp and the ends which go into the roller should be ragged at the corner to prevent their coming out. The tines need not be quite so strong as the teeth of a harrow. The whole instrument will weigh near a ton and a frame is to be annexed to it for the team to draw by, to which a box may be added for the driver to sit on. But beware of putting a wild, restiff or unmanageable team to this fearful instrument. The strength of four oxen or three horses will be necessary to draw it. The uses to which the spiky roller is to be applied are, in the first place, to reduce a stiff, stubborn, and clotty soil to a fine tilth for sowing. This it will perform with admirable expedition by only passing forwards and back again in the same track, reducing it even to a perfect garden mould. And, which greatly recommends it, it is used to advantage when the ground is too dry for ploughing, by means of which there need not be any delay in preparing ground for sowing. "It is certainly an instrument," say the compilers of the *Complete Farmer*, "that no farm where the land is stiff or the least liable to clot, should want [*lack—Ed.*]. For, besides the constant advantage of saving labour and bringing land to a better condition for any kind of sowing than the plough and harrow with any assistance of the work of hands can make it, in favourable seasons and under such circumstances as Mr. Randall has mentioned, the loss of the whole crop by an otherwise unavoidable delay beyond the seed time may be with certainty prevented." Another important use of this instrument is to renew the fruitfulness of grass land when it is so bound as to be almost barren or overrun with moss and bad grasses. Mr. Randall directs that a

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Early American Industries Association

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W. B. SPRAGUE, President,
43 Cedar Street, New York

BURTON A. KOLLMER,
Secretary and Treasurer,
c/o Staten Island Historical
Museum,
Richmond, Staten Island, N. Y.

S. E. GAGE, Chairman
Admissions Committee,
144-54 Sanford Avenue,
Flushing, N. Y.

HOWARD G. HUBBARD, Chairman
Recruiting Committee,
South Hadley, Mass.

Communications should be addressed as follows: Pertaining to the contents of THE CHRONICLE, to W. B. Sprague. Applications for membership, to S. E. Gage. Suggestions of prospective members, to Howard G. Hubbard. Other matters to Burton A. Kollmer. Addresses as above.

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W. B. SPRAGUE, Editor.

Our Purpose

The purpose of the association is to encourage the study and better understanding of early American industry, in the home, in the shop, on the farm, and on the sea, and especially to discover, identify, classify, preserve and exhibit obsolete tools, implements, utensils, instruments, vehicles, appliances and mechanical devices used by American craftsmen, farmers, housewives, mariners, professional men and other workers.

Dues

The annual dues are one dollar, payable September first, for the year immediately ensuing. The *Chronicle* for the current year is sent to all members without additional charge. Back numbers (except Nos. 6, 10, 11 and 12) may be secured from the Treasurer for 20c each. For further information, address any of the officers.

Editorial

This is our periodical invitation to all members to contribute literary material to THE CHRONICLE. Many persons have joined the Association since we issued such an appeal, and it should be understood by everyone that, officially, we have no editorial staff, but that our columns are open to all

who have anything to offer, either original material or excerpts from obsolete and scarce books, provided the subject comes fairly within the scope of early American industries. As should be evident to every reader, we do not confine ourselves to writings of a serious and studious nature, which require extensive research. Collecting adventures and experiences are always interesting, and particularly desirable are any comments on articles which we have published, especially if they are in the line of correction or amplification.

Make Your Community Museum Minded

By BURTON A. KOLLMER

With the advancement of this machine age and the complexity of modern life, many are prone to pass over the lessons taught by our pioneering ancestors. Every historical museum certainly has a definite position and inculcates indelibly upon the visitor the fact that the early settlers worked hard, persevered and enjoyed the gifts of God.

Each town or city is justly proud of its humble beginnings, and it is a civic duty that material relative to its development be preserved. In every village there is some old historic building, public or private, and here is the opportunity for a community museum.

In 1933, the old County Clerk's Office in Richmond, Staten Island, abandoned some ten years, with roof sagged and windows gone, was about to be razed. With much ambition and honest appeal, a group of museum-minded members of The Staten Island Historical Society conferred with the Borough President and obtained his pledge to restore the almost ruined building. A C.W.A. project was established and, after a few years, carried to a most successful conclusion.

It now devolved upon the members of the Society to secure suitable objects for exhibition. The number of members who could give freely of their spare time was limited but about half a dozen shouldered the responsibility and took on the task of building a museum. A plan was developed which embodied visits to other museums, historic research and mainly contacts and visits with the old families of the Island. At first there was only a scant idea as to what objects were suitable to collect, and it was not

known whether there were enough of these on Staten Island, the area of which is about eight by fourteen miles, to fill a museum of the size of the old building. As the group worked along, the plan developed beautifully, because it was quite definite that a museum of relics or "sticks and stones" was not desirable or rational. The plan called for a "balanced" museum. That is, not only fine things of artistic value but also those homely objects used about the farm and work shop, which gave evidence of hand work and Yankee ingenuity. Another factor which added materially was that we did not open the doors and then just wait for people to bring in their "rudera," but that the committee went about actively and visited the old family homes, their attics and barns, and sometimes after a great deal of "salesmanship" and gentle persuasion an old chair or perhaps a cobbler's bench was the reward. The museum idea had to be "sold" from house to house and many times re-visits were necessary to secure the smallest item. At first the list of persons to be interviewed was quite small but, as the work progressed, one contact led to many others, until at the present time there is a list long enough to keep the group busy for a long time.

With the idea of "balance" ever in mind, a rather interesting collection has been built up and it is hoped that, by the end of 1937, there will be twenty-five cases and eight spacious exhibition rooms, filled with objects of historical interest for study and research and pleasurable entertainment for those who recollect at first hand and those of another generation which has never before encountered them. Here will be costumes, glass, china, furniture, vehicles, guns, tools, hardware, building material and a thousand other items to complete the picture of the past.

Let every community be justly proud of its memorable beginnings and in spite of those who say that you should have started twenty years ago, the old adage has been proven beyond a doubt, here in 1937, that "It is never too late."

Whitlock's *Trades* says (page 445): "And this course the Tinman pursues although the tin is not of the stoutest plates, which we have mostly kept in view, but of a thinner sort, all tin, vulgarly termed *lattin* in the western counties."

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Farm Implements

(Continued from page 4, column 3)

good compost be prepared and in the autumn when the ground is a little moist, that the spikes will enter the soil easily, to pass the roller up and down till the surface is well broken. Then sow hay seeds and spread the compost over them, to be followed with a smooth roller, with a brush harrow after it. Thus a fine sward will be renewed and good crops of the best grass will follow. But it is obvious to remark that the surface must be pretty level and the land free from stones to admit of these operations. Mr. Randall also recommends passing this roller in the spring over winter grain to loosen the surface and increase vegetation and smoothing it afterwards with a brush harrow.

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Bath Tubs

(Continued from page 1, column 3)

"No prudent person, we trust, will have recourse to a hot bath, without medical advice. Every person should use a tepid bath three times a week at least in summer, as the practice is not only very cleanly, but highly healthful. If some container could be effected to heat water in the tub, few families would be without them, as the water might be let in from the hydrants, and after being used, could be let out again by a pipe leading down the side of the house, or communicating with the rain spout. Rome for five hundred years together, had no physicians, but only baths, and to this day a multitude of nations cure all their maladies merely by baths." Here was comfort and good advice. The doctor at once decided to fight the innovation and his confreres loyally joined him in attacking the bathtub, for did not Rome "have no physicians, but only baths"?

The agitation spread to the neighboring states. The politicians took up the cudgels and decried the introduction of bathtubs, as a questionable luxury from England. The legislature of Virginia laid a yearly tax of thirty dollars on bathtubs and introduced heavy water rates. In 1843, the Common Council of Philadelphia sat in assembly to consider an ordinance to prohibit the taking of hot baths between November and March, and it was only the lack of two votes

which saved the day for the bathtub. Far-away Boston was more successful in guarding the public weal, and, in 1845, passed an ordinance forbidding bathing in a tub without a physician's order; we are told, however, that it was never enforced and finally repealed in 1852.

The turning point had come a few years before, in 1850, when no less a personage than President Millard Fillmore, gave official sanction to the innovation, which he had tried and liked in Adam Thompson's house in Cincinnati. As the thirteenth president of the United States, he had no cause to be superstitious and fear dire consequences, and was thoroughly accustomed to opposition, for, during his entire administration, his opponents had a majority in both houses of Congress. The bathtub which President Fillmore installed in the White House was made of thin cast iron by Harper and Gillespie of Philadelphia, and remained there until Cleveland's term, when it was replaced by more modern equipment. The prejudice having been thus broken, by 1860 there was a bathtub in every big hotel in New York and some boasted two or three.

Adam Thompson's experiment was of far-reaching consequences, but his was by no means the first bathtub in America, as is still claimed by some writers. There were others before his time. Only recently, in the spring of 1934, an equally untenable claim was advanced by a spokesman of the Lancaster (Pa.) Medical Society. He declared that the bathtub originated in Lancaster in 1839, when one Jacob Demuth not only invented the bathtub, but installed the original model in his own home at Lancaster, Pa. The fact is that old Philadelphia had anticipated Demuth by a number of years. Mr. George Cuthbert Gillespie relates (See Proceedings, Numismatic & Antiquarian Society of Philadelphia, Volume 30, Philadelphia 1925, pp. 103-117.) that "Nicholas Biddle in 1830 gave a commission to Truthers, the well-known marble man, to make a bathtub, which at that time was an article of furniture not much in use. This tub when completed was placed in his dwelling at 215 (old number) Spruce Street, between Seventh and Eighth Streets, north side, and later removed to his estate at Andalusia. Of recent years, having been replaced by more modern tubs, it was set in the garden and kept filled with water during the spring and summer seasons.

In it the birds disport themselves to their heart's content, and goldfish are kept, thus making a novel aquarium and bird bath. It is made from a single block of marble, over six feet in length and rather plain in design." Mr. Gillespie has well said in his account that, in 1830, a bathtub "was an article of furniture not much in use." This is a much safer attitude to take when speaking of old contrivances or customs. Who can tell now that there was no bathtub in any of the millions of American homes in 1830. They were not unusual in Europe, and, at that time, a large percentage of the population of this country was still rooted in European traditions. It would be rather surprising if some of those immigrants had not transplanted to our shores this custom of their earlier lives.

Leaving conjecture, we are able to relate that Benjamin Franklin had a bathtub in 1785. It was a *sitz* bath, and the very name indicates the European origin, but it must be said that the ingenious doctor, while he may have become acquainted with the *sitz* bath on one of his European sojourns, modified it to suit his own peculiar fancy. A description of it is given by the Reverend Jeremiah Belknap, a New England divine, who wrote a letter to his friend, the Reverend Manasseh Cutler, in 1785, and devoted a passage to Benjamin Franklin. The irreverent tone of the reverend must not offend us, as the halo around Franklin's brow was then only faintly forming and not yet so luminous as to awe his contemporaries. The reference to the bathtub reads as follows: "It is to be wished for the benefit of mankind that the old Don would disburden himself of all his philosophical hints, experiments and conjectures before he makes his exit, which must be soon, as he has completed four-fifths of a century, and is obliged to use the warm bath every day to ease the pain of the stone. This bathing vessel is said to be a curiosity. It is copper, in the form of a slipper, he sits in the heel and his legs go under the vamp; on the instep he has a place to fix his book, and here he sits and enjoys himself. About the time I left the city of Philadelphia, they chose him president of the Executive Council, his accepting the office is a sure sign of senility, but would it not be a capital subject for an historical painting—the Dr. placed at the head of the Council board in his bathing slipper!"

Early American Industries Association

Membership

Membership lists should be amended as follows: (N) indicates new member; (S) indicates non-member subscriber; (Ch) indicates change of address; (D) indicates decease.

ILLINOIS

Chicago: McCormick Historical Association, 679 Rush St. (S)

MASSACHUSETTS

Mattapoisett: York, Mrs. Elizabeth (D)

MICHIGAN

Grand Rapids: Grand Rapids Public Museum, 54 Jefferson St. (S)

NEW JERSEY

Englewood: Glidden, Nathaniel Frank (N)
Newark: Bush, Walter, 50 Park Place (N)

NEW YORK

Fonda: Morford, Peter (N)

New Rochelle: Vinelson, Miss Marion H., 85 Locust Ave. (N)

New York: Heaney, Miss Sara (Ch. to 330 W. 36th St.); Huser, Thomas E. (Ch. to 61 Broadway)

OHIO

Columbus: Ditwiler, H. H., c/o The Enterprise Co. (N)

RHODE ISLAND

Kingston: Browning, Dr. Harold (N)

The Questionnaire

Questionnaires recently received have been tabulated as follows (for KEY, see No. 21):

NEW YORK

Afton: Marshall G. Hill (C), Afton Inn. Collects FT, KH, LD, TA, TC, also traps and measuring devices. Offers wig-wag churn, flax brake, flax wheels, cheese press, KH. Visit. (Mr. Hill's address was incorrectly given in No. 22 as Afton, New Jersey).

Brooklyn: Historic American Merchant Marine Research Survey (Miss Marion H. Vinelson), 365 Jay St. Sponsored by The Smithsonian Institute. Wants half-rigged or fully rigged models of American vessels (1840-60), also shipyard tools and machinery. Wants LP. Write.

New York: Thomas E. Huser (C), 61 Broadway. Collects FT. Wants LP. Write*.

The Finishing Touch

A lady who had come into my shop the other day to look for some very rare Sandwich glass, happened to notice the little wooden plaque at the top center of the cut. I explained what the small bits of iron were, and she then caught sight of a notice that read "NOT FOR SALE." Her exclamation need not be repeated, but the idea was "Who in the wide, wide world

would ever want to buy them anyway?" I lay the question before you, with the information to start with that I am one of the idiots who am glad to.

Today we have key-hole plates or escutcheons that merely protect the wood against the grating of the key. They are purely utilitarian bits of steel and brass, made as small and unobtrusive as possible, whose duty it is to prolong the life of the woodwork in which they are hidden. Years ago they were "the finishing touch" to furniture, chests, doors, and even locks.

It is hard to date such workmanship. Ancient strong boxes, vaults and doors were embellished with huge iron es-

than likely purely for ornament, the lock itself often had great pieces of wrought iron on its face. These were always masterpieces of original design, as were the strips that often bound them. Even from this small collection, I think one can see the lengths to which these ingenious smiths went to add a "touch" to a door, chest or lock.

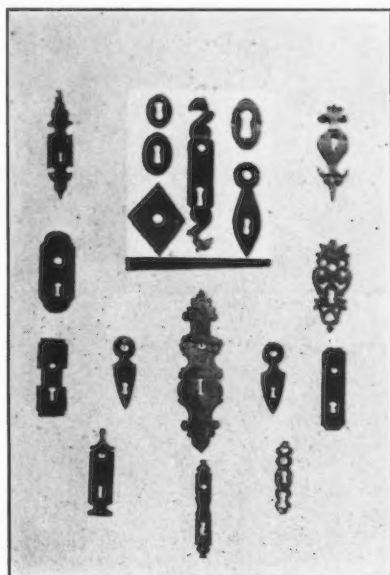
In New England, the large oval escutcheons seemed to satisfy the demand. In New York, the Dutch influence called for something more ornate and imaginative, as seen in the two at the bottom of the first column. In the Pennsylvania territory influenced by the Moravian designs, these plates, ostensibly for protection, were an excuse to let the anvil ring and the creative imagination "go wild."

The crude square plate, third from top in the second column from the left, actually did protect. It must have been put on afterwards. When I took it from the cellar door of an old wreck in Sullivan County, New York, I found that a poacher's knife had whittled through the door at some earlier time and touched the workings of the lock.

Most of the early iron, brass and wood rim locks were fastened to the inside of the door and had no knobs. The only evidence of a lock on the outside was the keyhole and escutcheon. Later, knobs came into use from England and were then made here. This necessitated another hole in the large fancy escutcheons for the shaft. In and around Pennsylvania, a lever was most common. Instead of turning a knob, one pressed down the lever to open the door; hence the holes in many of those shown.

The creation of such pieces does not seem to warrant the title of "industry" and yet it is a phase of old time manufacture that is past. Most of us have seen examples of such workmanship in Europe, but few realize that twelve-inch escutcheons were made and used in the Colonies. I have many times been surprised that my key-hole plates elicited such surprise from rather erudite antiquarians.

For their originality of design, for their finishing touch, for their part in the development of the lock from the crude ten-by-twenty-inch whittled chunks of oak to the present day masterpieces, for the homes and family heirlooms they protected and preserved for posterity and for what they tell of the men who made them, I ask at least honorable mention.



KEY-HOLE PLATES

cutcheons, all over Europe. In the American Colonies, I imagine that the first ornamental key-hole plates were imported. I feel sure the first forges here made them, mixing the plain, strong, sturdy Puritanism with the fancy designs of the Old Country. The Moravians of Pennsylvania brought with them the men who had done the best work in Germany. From this point on, the Colonies needed no lessons in their production.

In using the first great, heavy, oak-whittled wood locks, the outside of the door required something to keep the key from wearing away the door and to preserve the one small hole for the key to turn the heavy bolt in the lock, fastened to the other side of the door. Perhaps for added strength, but more

COMMUNICATIONS AND "POINTS" OF INTEREST

From Mr. H. K. LANDIS:

"On page 6 of the March CHRONICLE, Mr. Romaine describes a mirror-lens stand and asks whether anyone has something similar. In the Landis Valley Museum there is a variety of such devices. The one illustrated in the first column of Mr. Romaine's article is simpler in design than the one we have, but they are the same thing. There is no date nor maker's mark, the wood resembles walnut, both mirror and lens are excellent; the height of the stand is 26 inches, the diameter of the lens, 4.5 inches, and that of the base, 9.8 inches. The mirror measures 6.5 by 8.3 inches and the hinges are brass. The upper frame is attached to a post which slides inside the pillar and is fastened by a wooden thumb screw. Its date I do not know, but it resembles the work done just after the Civil War. It may have had several uses; for example, when the lens is placed before and close to the mirror, it magnifies the face and is said to have been used as a shaving mirror; perhaps also as a toilet or make-up mirror. When the mirror is placed at an angle of 45 degrees and the lens hangs vertical, any object below the mirror is magnified when looked at through the lens; but a reading glass would be more effective for that purpose, so that this method seems too roundabout for practical purposes. However, if a dark chamber were added, perhaps there would result a *camera obscura* which would project the image upon a surface to be drawn. As a matter of fact, we have never seen it used. Dr. Batchelder is correct in his reference to the stereoscope. We have one combined stereoscope and single lens, magnifying considerably and large enough for both eyes, but the construction is not the same as he illustrates. It seems, however, that the stereoscope devised by Sir Charles Wheatstone in his paper in 1838 was a double-reflecting mirror device, later improved by Sir David Brewster in 1843, by substituting two refracting half lenses, as in the present day apparatus. However, we seem to have outgrown the stereoscope and reading glass, just as we have the kaleidoscope, zootrope, camera obscura, camera lucida, magic lantern, and many other devices designed to entertain and instruct. They are now museum pieces. Even the crystal radio set is an antique, although but half a generation old. "The king is dead—long live the king" might be said of many things. The lens-and-mirror stand we have is said to be from Nova Scotia, but that is no proof that it was made there. It

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seems to be one of those unusual things that escaped the notice of writers. When I purchased it, the owner said it was a shaving stand. I intended to use it as a camera obscura in sketching antiques, and it works. The mirror can be used as it is, and the lens would serve as a reading glass, although, combined with the mirror, the lines would be reversed. There was a day when, upon the center table of the parlor or guest 'sitting room,' there reposed for the entertainment of visitors such things as the stereoscope, peg board, leopard sea shell, zootrope or Roget's phenakestoscope, the family album, a mechanical puzzle or two, a decorated apple tray, perhaps a fig-mill (morelle) board, and, better than all, the kaleidoscope with its ever changing series of beautiful figures. Like the marble-top center table, they are hardly ever found today except as antiques. So it is with this so-called shaving stand."



From Mr. LAWRENCE B. ROMAINE:

"This is without any doubt the most puzzling yoke I have ever seen. It is small, delicate and beautifully made—but for what? The cross bar measures but nineteen inches long and the bows approximately eleven by eight inches,—hardly large enough for two bull calves to train in and yet too large for goats or dogs. I hope that someone can help me out. The yoke is made of hand-whittled oak. The two bows, as can be seen, are of one piece, forming a handle at the top. Two small hollow pieces, a hand-whittled pin, and another cross piece keep the bows in place and make the handle. It is a masterpiece of whittling and almost reminds one of the pine chains and 'ball in a cage' things we find, from a practical standpoint. The piece out of which the bows are fashioned is smaller than Milady's little finger and the other parts are in proportion. Won't someone please 'have seen one' and write the CHRONICLE?"

According to *Danker and Sluyter's Journal* (1679-80), "Most of the English have their houses made of nothing but clapboards *** (which) they split of clapwood, so they are like cooper's staves but not bent. They are made very thin *** so that the thickest end is about a pinck (little finger) thick, and the other is made sharp ***. They are about 5 or 6 feet long and are nailed on the outside with the ends lapped over each other. They are not usually laid so close together as to prevent you from sticking a finger between them, in consequence *** of the board being crooked. When cold and windy the best people plaster them with clay. ***." — L. L. T.

Knight's *American Mechanical Dictionary* states that round bullets were almost exclusively used, both for rifles and for smooth-bore muskets, until about 1830, when the pointed, elongated type was first experimented with successfully. This latter type was not, however, adopted by the United States Army until 1856.

A piece of hard wood, about a foot square and an inch and a half thick, with one of its surfaces entirely whittled into rows of acorn-shaped protuberances caused a considerable amount of puzzlement and discussion, until its owner explained that it had come to her with the tradition that it was used to place hickory nuts upon, when pounding to crack them, the knobs preventing them from slipping away from the blow. It works admirably in this capacity.

"A specimen of the rapidity with which an article can be manufactured in this country was given a few years ago, when the late Sir John Throgmorton sat down to dinner dressed in a coat which on the same morning had been wool on the back of the sheep. The animals were sheared, the wool washed, carded, spun, and woven. The cloth was scoured, fulled, sheared, dyed, and dressed, and then by the tailor's aid, made into a coat between sun-rising and the hour of seven p.m., when Sir John Throgmorton sat down to dinner as the chairman of an agricultural meeting with this proof of the speed and excellence of British art upon his back." — Whittock's *Trades* (1837).

